To: Brasaemle, Karla[KBrasaemle@TechLawlnc.com]

Cc: Chesnutt, John[Chesnutt.John@epa.gov]; LEE, LILY[LEE.LILY@EPA.GOV]

From: Terry, Robert

Sent: Fri 4/15/2016 8:02:06 PM

Subject: RE: Source of Thorium cleanup level

That would make sense. NRC was using 25 mrem/yr quite often at that time, not only in preparing the decommissioning rule that it eventually adopted but for other subjects as well.

From: Brasaemle, Karla [mailto:KBrasaemle@TechLawInc.com]

Sent: Friday, April 15, 2016 12:59 PM

To: Terry, Robert < Terry.Robert@epa.gov>; Chesnutt, John < Chesnutt.John@epa.gov>; LEE,

LILY <LEE.LILY@EPA.GOV>

Subject: RE: Source of Thorium cleanup level

No, it was based on 25 mrem.

Karla Brasaemle, P.G., TechLaw, Inc.

415-762-0566

From: Terry, Robert [mailto:Terry.Robert@epa.gov]

Sent: Friday, April 15, 2016 12:57 PM

To: Brasaemle, Karla < KBrasaemle@TechLawInc.com>; Chesnutt, John

<Chesnutt.John@epa.gov>; LEE, LILY <LEE.LILY@EPA.GOV>

Subject: RE: Source of Thorium cleanup level

What was the thorium value? If it was in 40CFR192 it wasn't a risk-based value.

From: Brasaemle, Karla [mailto:KBrasaemle@TechLawInc.com]

Sent: Friday, April 15, 2016 10:27 AM

To: Chesnutt, John < Chesnutt. John @epa.gov >; LEE, LILY < LEE.LILY @EPA.GOV >

Cc: Terry, Robert < Terry.Robert@epa.gov > Subject: Source of Thorium cleanup level

Hi Lily

I think I've located the source of the thorium cleanup number – the (UMTRA) regulations, 40 CFR 192 (and???). However, the only version I can find on line is the 2015 update. We need to know what the thorium cleanup number was in 2000 or 2001, so we need the previous version of the UMTRA regulations. Perhaps ORC can help?

I remember a discussion about the thorium cleanup level – EPA disagreed with using a number that equated to 25 mrem and wanted it lowered to 15 mrem, but the Navy insisted on using a promulgated number – the only one they could find was from the UMTRA program. EPA didn't think that was relevant, but I don't know why EPA did not prevail. Although Sheryl Lauth (later Bilbrey) and Michael Work were the people who worked on rad at Hunters Point in the early 2000s, they are no longer with EPA. However, Claire Trombadore was also an RPM for Hunters Point and may remember why the Navy prevailed. It may be due to the fact that removal actions are essentially "voluntary" and EPA thought this cleanup number would be updated in RODs if necessary.

Karla Brasaemle, P.G., TechLaw, Inc.

415-762-0566